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10/689,370	10/20/2003	Chuxin Chen	28787.70	2855
27683	7590	12/13/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			SUN, XIUQIN	
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			2863	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/689,370

Applicant(s)

CHEN ET AL.

Examiner

Xiuqin Sun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/20/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Upon further consideration, the finality of the office action of 05/17/2006 is hereby withdrawn and replaced by the following office action.

#### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Chen et al. (U.S. Patent No. 6,668,241, hereinafter '241) in view of Hussein (U.S. Patent No. 5,210,704). Both references deal with essentially the same method and system for monitoring equipment in a telecommunications network, as shown in Table 1 below:

**Table 1**

#10/689,370 claims	#US 6,668,241 B2 claims
<p>1. A system for monitoring equipment in a telecommunications network, the system comprising:            a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;            a plurality of rules related to the monitor set,  <u>wherein the rules include at least one rule usable to predict exhaustion of the equipment;</u>              means for obtaining data related to the monitor set; and              a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the analytical report includes a prediction of exhaustion of the equipment, wherein the program includes:            an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis and formatting the analysis into the analytical reports.</p>	<p>1. A system for monitoring equipment in a telecommunications network, the system comprising:            a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;            a plurality of rules related to the monitor set;              means for obtaining data related to the monitor set; and              a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises:              an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to produce an analysis, and formatting the analysis into the analytical reports, and              wherein at least one of the analytical reports is in the form of a job justification story.</p> <p>2. A computer program .....</p> <p>7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.</p>

<p>2. The system of claim 1 wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.</p>	
<p>3. The system of claim 2 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.</p>	<p>9. The computer program of claim 7 wherein the predicted exhaust condition is in the form of a demand and capacity chart.</p>
<p>4. A method for monitoring equipment in a telecommunications system and predicting when the equipment will be exhausted, the method comprising:</p> <p>selecting a configuration for the equipment;</p> <p><u>defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment;</u></p> <p><u>obtaining equipment related data using a separate inventory system;</u></p> <p><u>requesting the retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules;</u></p> <p><u>and receiving a comparison of the data and the review.</u></p>	<p>4. The computer program of claim 2 .....</p> <p>5. The computer program of claim 4</p> <p>wherein the third interface portion allows the user to select a configuration for the equipment from a list of predetermined possible configurations.</p>
<p>5. The method of claim 4 wherein identifying the one or more rules usable to calculate exhaustion of the equipment includes identifying at least one of a lifetime of the equipment and a capacity of the equipment.</p>	
<p>6. <u>The method of claim 4 wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference.</u></p>	<p>4. The computer program of claim 2 wherein the user interface provides a display screen comprising:</p> <p>.....</p> <p>a second interface portion for allowing the user to select a review period; and</p>

	<p>.....</p> <p>8. The computer program of claim 7 further comprising a remote notification program interface for reporting at least one of the analytical reports to the user through an automatic email operation.</p>
7. The method of claim 4 wherein the configuration is selected from a list of predetermined possible configurations.	5. The computer program of claim 4 wherein the third interface portion allows the user to select a configuration for the equipment from a list of predetermined possible configurations.
<p>8. The method of claim 4 wherein identifying one or more rules comprises:</p> <p>selecting a rule from a rule tree according to a rule set definition, the rule comprising an antecedent and a consequent;</p> <p>and modifying either or both of the antecedent and the consequent of the selected rule.</p>	<p>6. The computer program of claim 2 wherein the user interface provides a display screen comprising:</p> <p>a first interface portion for allowing the user to select a rule from a rule tree according to a rule set definition, the rule comprising an antecedent and a consequent; and</p> <p>a second interface portion for allowing the user to modify either or both of the antecedent and the consequent of the selected rule.</p>
9. The method of claim 4 further comprising receiving the comparison as an analyzed conclusion provided through an email operation.	8. The computer program of claim 7 further comprising a remote notification program interface for reporting at least one of the analytical reports to the user through an automatic email operation.

Table 1 shown above lists the literal difference between the claims 1, 3, 4 and 6-9 in the instant application (hereinafter '370) and the claims 1, 2 and 4-9 in '241. It is obvious that the '241 patent discloses the claimed invention recited in claims 1, 3, 4 and 6-12 of '370 except the limitations in claims 2 and 5 and the underlined portion in claims 1, 4 and 6.

The teaching of Husseiny includes: a rule-based monitoring expert system, wherein the rules include at least one rule usable to predict exhaustion of the equipment (col. 6, lines 9-19; col. 16, lines 38-56); wherein at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41); defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment (cols. 14-15, lines 64-10; col. 16, lines 38-55; col. 18, lines 3-19); obtaining equipment related data using a separate inventory system (col. 13, lines 8-30; col. 18, lines 23-27); requesting the retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules (col. 13, lines 8-30; col. 18, lines 23-53); and receiving a comparison of the data and the review (col. 13, lines 31-35; col. 18, lines 23-53); wherein identifying the one or more rules usable to calculate exhaustion of the equipment includes identifying at least one of a lifetime of the equipment and a capacity of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41); and, wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference (cols. 10-11, lines 62-18; cols. 14-15, lines 64-2).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the invention of '241 in order to provide a better rule-based monitoring expert system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of

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an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

4. Claims 10-12 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 7 and 9 of U.S. Patent No. 6,668,241 B2 to Chen et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because they essentially claim patentably the same invention, as shown in Table 2 below.

**Table 2**

#10/689,370 claims	#US 6,668,241 B2 claims
<p>10. A system for monitoring equipment in a telecommunications network, the system comprising:</p> <p>a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;</p> <p>a plurality of rules related to the monitor set, wherein at least one rule enables a prediction of equipment exhaustion;</p> <p>means for obtaining data related to the monitor set; and</p> <p>a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment.</p>	<p>1. A system for monitoring equipment in a telecommunications network, the system comprising:</p> <p>a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;</p> <p>a plurality of rules related to the monitor set;</p> <p>means for obtaining data related to the monitor set; and</p> <p>a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises: an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to</p>



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<p>18. The system of claim 10 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.</p>	<p>produce an analysis, and formatting the analysis into the analytical reports, and wherein at least one of the analytical reports is in the form of a job justification story.</p> <p>2. A computer program for monitoring .....</p> <p>7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.</p> <p>9. The computer program of claim 7 wherein the predicted exhaust condition is in the form of a demand and capacity chart.</p>
<p>11. The system of claim 10 further comprising a graphical user interface for receiving additional rules from a user and for providing the additional rules to the program.</p>	<p>2. A computer program for monitoring at least one piece of equipment in a telecommunications network, the computer program comprising:</p> <p>a user interface for receiving one or more rules from a user and for providing one or more analytical reports of the equipment based on the rules;</p> <p>.....</p>
<p>12. The system of claim 10 wherein the program comprises</p> <p>an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to</p>	<p>1. A system for monitoring equipment in a telecommunications network, the system comprising:</p> <p>.....</p> <p>a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the program comprises:</p> <p>an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules, if a match exists, firing the rule on the data to</p>

produce an analysis, and formatting the analysis into the analytical reports,	produce an analysis, and formatting the analysis into the analytical reports, and wherein at least one of the analytical reports is in the form of a job justification story.
wherein the analytical report includes a prediction of equipment exhaustion.	2. A computer program .....  7. The computer program of claim 2 wherein at least one of the analytical reports indicates a predicted exhaust condition.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. (U.S. Pat. No. 5999179) in view of Sampath et al. (U.S. Patent No. 6892317).

Regarding claim 1, Kekic et al. teach a system for monitoring equipment in a telecommunications network (see abstract), the system comprising: a monitor set including at least one of either a subset of the equipment (col. 6, lines 14-39), a review period (col. 18, lines 19-32 and col. 20, lines 19-21), or a configuration for the equipment (col. 46, lines 36-52); a plurality of rules related to the monitor set (col. 23, lines 63-67 and col. 24, lines 20-28); means for obtaining data related to the monitor set

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(col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28, lines 6-8 and col. 36, lines 15-27); and a program for creating logging of pertinent information about the monitor set based on the rules and the data (cols. 7-8, lines 61-41; cols. 27-28, lines 44-8); said program comprises: an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system (col. 3, lines 9-28; col. 16, lines 55-60; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7), determining if a match exists between the data and one or more of the plurality of rules and selectively firing the rule on the data to produce an analysis, and to create said logging (col. 8, lines 16-41 and col. 36, lines 15-27).

Kekic et al. do not mention expressly that: said rules include at least one rule usable to predict exhaustion of the equipment; said logging of pertinent information includes one or more analytical reports, wherein the one or more analytical reports include a prediction of exhaustion of the equipment;

Sampath et al. teach rule-based systems and methods for failure prediction and diagnosis of electronic equipments in a network environment (Abstract), wherein the rules include at least one rule usable to predict exhaustion of the equipment (col. 6, lines 29-57); and a program for creating one or more analytical reports about a monitor set based on the rules and data related to the monitor set, wherein said one or more analytical reports include a prediction of exhaustion of the equipment (col. 6, lines 29-46; col. 9, lines 4-30).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Sampath et al. in the invention of Kekic et al. in order

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to provide a better rule-based monitoring system that is capable of acquiring and processing a variety of data including component level data, system level data, job level data and event level data from one or more electronic systems to develop and derive additional prediction, diagnosis and remediation methodologies and content for the electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Regarding claims 13-15, the teaching of Kekic further includes: wherein the configuration for the equipment is selected from a list of predetermined possible configurations (col. 15, lines 49-56; cols. 44-45, lines 58-8); wherein the rules are organized in a tree structure (col. 24, lines 20-28); wherein at least one of the rules includes an antecedent and a consequent (col. 49, lines 13-55; cols. 69-70, lines 7-6).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al., as applied to claim 1 above, and further in view of Hussein (U.S. Patent No. 5210704).

Regarding claim 2, Kekic et al. in view of Sampath et al. teach the system includes the subject matter discussed above except: wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

Hussein teaches a rule-based monitoring expert system, wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Hussein in the combination of Kekic et al. and

Sampath et al. in order to provide a better rule-based monitoring system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al. further in view of Husseiny, as applied to claims 1 and 2 above, and further in view of Pisello et al. (U.S. Pat. No. 5678042).

The combination of Kekic et al., Sampath et al. and Husseiny teaches a system that includes the subject matter discussed above except: wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a program for creating one or more analytical reports about the monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the combination of Kekic et al., Sampath et al. and Husseiny in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

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9. Claims 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Jain et al. (U.S. Pat. No. 6225999) and Bergholm et al. (U.S. Pat. No. 5761432).

Regarding claim 4, Kekic et al. teach a method for monitoring telecommunications equipment (see abstract), the method comprising: selecting a configuration for the equipment (see Figs. 37A-37E; col. 46, lines 36-52; col. 54, lines 5-67 and col. 62, lines 7-9); obtaining equipment related data using a separate inventory system (col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28, lines 6-8 and col. 36, lines 15-27); requesting the retrieval of the obtained data so that the data can be compared to the one or more rules (col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28, lines 6-8 and col. 36, lines 15-27).

Kekic et al. do not mention expressly that: defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment; obtaining equipment related data using a separate inventory system; and receiving a comparison of the data and the review.

Jain et al. disclose a system and method for network management (Abstract), including: defining a review for a selected configuration, the review identifying one or more rules usable to calculate exhaustion of network equipment (col. 5, lines 45-57; col. 7, lines 19-34); and receiving a comparison of the data and the review (col. 5, lines 35-51).

It would have been obvious to one having ordinary skill in the art at the time was made to incorporate the teachings of Jain et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring expert system that permits the network manager to customize the reviewed information in a manner which limits it to that which is particularly useful to the manager and provides the flexibility to navigate to any given area of the network to obtain all information necessary to properly carry out management duties (Jain et al., col. 2, lines 31-38).

Bergholm et al. disclose a method and system for providing an efficient use of telecommunication network resources, and teach the step and means of obtaining equipment related data using a separate inventory system (see Abstract; Fig. 1; col. 1, lines 15-27; col. 2, line 64 to col. 3, line 5; col. 3, lines 30-45, lines 63-67; col. 5, lines 8-13; col. 7, lines 14-40 and col. 15, lines 42-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Bergholm inventory system in the Kekic system in order to monitor the network equipments located in various control pointes more efficiently (Bergholm et al., col. 1, lines 15-27).

Regarding claims 7 and 8, the teaching of Kekic et al. further includes: said configuration is selected from a list of predetermined possible configurations (see Figs. 37A-37E and col. 37, lines 20-50; col. 50, lines 64-67 ad col. 51, lines 1-7); said step of identifying one or more rules comprises: selecting a rule from a rule tree according to a rule set definition (col. 23, lines 63-67 and col. 24, lines 20-28), the rule comprising an antecedent and a consequent (col. 6, lines 49-56; col. 69, lines 8-15); and modifying

either or both of the antecedent and the consequent of the selected rule (col. 40, lines 34-67; col. 41, lines 1-3, lines 24-33, lines 63-67; col.42, lines 1-24).

Regarding claim 9, the Examiner takes official notice that an automatic email operation is a well-known practice in the art to communicate with a remote user. It would have been obvious to include such a feature in the method of Kekic et al. as one of the notification formats for the purpose of reporting said comparison results to remote users.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Jain et al. and Bergholm et al., as applied to claim 4 above, and further in view of Husseiny.

Regarding claim 6, Kekic et al. in view of Jain et al. and Bergholm et al. do not mention expressly: wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference.

The teaching of Husseiny includes: a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference (cols. 10-11, lines 62-18; cols. 14-15, lines 64-2).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Husseiny in the combination of Kekic et al., Jain et al. and Bergholm et al. in order to provide a better rule-based monitoring expert system that is capable of examining the predictability of the system for predicting future trends



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and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Jain et al. and Bergholm et al., as applied to claim 4 above, and further in view of Pisello et al.

Kekic et al. in view of Jain et al. and Bergholm et al. teach the method that includes the subject matter discussed above except: identifying at least one of a lifetime of the equipment and a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a method for creating one or more analytical reports about the monitor set, including a step of identifying a capacity of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the combination of Kekic et al. Jain et al. and Bergholm et al., in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

12. Claim 10-12, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al. and Pisello et al.

Regarding claim 10, Kekic et al. teach a system for monitoring equipment in a telecommunications network (see abstract), comprising: a monitor set including at least one of either a subset of the equipment (col. 6, lines 14-39), a review period (col. 18,

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lines 19-32 and col. 20, lines 19-21), or a configuration for the equipment (col. 46, lines 36-52); a plurality of rules related to the monitor set (col. 23, lines 63-67 and col. 24, lines 20-28); means for obtaining data related to the monitor set (col. 8, lines 16-41; col. 15, lines 49-67; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7; col. 28, lines 6-8 and col. 36, lines 15-27); and a program for creating logging of pertinent information about the monitor set based on the rules and the data (col. 7, lines 61-67; col. 8, lines 1-41; col. 53, lines 57-67 and col. 54, lines 1-4).

Kekic et al. do not mention expressly: wherein at least one rule enables a prediction of equipment exhaustion; said logging of pertinent information includes one or more analytical reports about the monitor set based on the rules and the data; wherein at least one of the one or more analytical reports details a relationship between demand and capacity for at least a portion of the equipment.

Sampath et al. teach rule-based systems and methods for failure prediction and diagnosis of electronic equipments in a network environment (Abstract), wherein the rules include at least one rule usable to predict exhaustion of the equipment (col. 6, lines 29-57); and a program for creating one or more analytical reports about a monitor set based on the rules and data related to the monitor set, wherein said one or more analytical reports include a prediction of exhaustion of the equipment (col. 6, lines 29-46; col. 9, lines 4-30).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Sampath et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring system that is capable of acquiring and

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processing a variety of data including component level data, system level data, job level data and event level data from one or more electronic systems to develop and derive additional prediction, diagnosis and remediation methodologies and content for the electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Pisello et al. teach a program for creating one or more analytical reports about a monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the invention of Kekic et al. in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

Regarding claim 11, Kekic et al. further teach: a graphical user interface for receiving additional rules from a user and for providing the additional rules to the program (see Figs. 23-26; col. 6, lines 49-56; col. 40, lines 34-67; col. 41, lines 1-3, lines 24-33).

Regarding claim 12, Kekic et al. further teach: said program comprises: an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system (col. 3, lines 9-28; col. 16, lines 55-60; col. 18, lines 12-32, lines 45-55; col. 19, lines 1-7), determining if a match exists between the data and one or more of the rules, and selectively firing the rule on the data to produce an analysis,

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and to create the one or more analytical reports (col. 8, lines 16-41 and col. 36, lines 15-27).

Kekic et al. do not mention expressly: wherein the one or more analytical reports include a prediction of equipment exhaustion.

The teaching of Sampath et al. includes: wherein the one or more analytical reports include a prediction of equipment exhaustion (col. 6, lines 29-57; col. 9, lines 24-30).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Sampath et al. in the invention of Kekic et al. in order to provide a better rule-based monitoring system that is capable of acquiring and processing a variety of data including component level data, system level data, job level data and event level data from one or more electronic systems to develop and derive additional prediction, diagnosis and remediation methodologies and content for the electronic systems (Sampath et al., col. 2, lines 37-41 and lines 63-67).

Regarding claims 16, 19 and 20, the teaching of Kekic further includes: wherein the configuration for the equipment is selected from a list of predetermined possible configurations (col. 15, lines 49-56; cols. 44-45, lines 58-8); wherein the rules are organized in a tree structure (col. 24, lines 20-28); wherein at least one of the rules includes an antecedent and a consequent (col. 49, lines 13-55; cols. 69-70, lines 7-6).

Regarding claim 18, Kekic et al. do not mention expressly: wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

Pisello et al. disclose a network management system, and teach a program for creating one or more analytical reports about the monitor set, wherein at least one of the analytical reports details a relationship between demand and capacity for at least a portion of the equipment (see Figs. 3A-B and 4A-B; col. 17, lines 19-43, lines 50-64 and col. 21, lines 55-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Pisello et al. analytical report in the logging of pertinent information taught by Kekic et al. in order to recognize a variety of current status problems and perform various trend analysis on said equipment (Pisello et al., col. 17, lines 19-21).

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. in view of Sampath et al. and Pisello et al., as applied to claim 10 above, and further in view of Hussein.

Regarding claim 17, Kekic et al. in view of Sampath et al. and Pisello et al. do not mention expressly that: wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

Hussein discloses a rule-based monitoring expert system, and teaches one or more analytical reports which include a prediction of exhaustion of the equipment and a projected lifetime of the equipment (col. 6, lines 9-19; col. 16, lines 38-56; col. 21, lines 14-41).

It would have been obvious to one having ordinary skill in the art at the time was made to include the teachings of Hussein in the combination of Kekic et al., Sampath

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et al. and Pisello et al. in order to provide a better rule-based monitoring system that is capable of examining the predictability of the system for predicting future trends and estimates of remaining life of an equipment based on statistical and model data analyses (Husseiny, Abstract; col. 6, lines 9-19; col. 16, lines 38-56).

### ***Response to Arguments***

14. Applicant's arguments received 08/31/06 with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-20 are rejected as new prior art references (U.S. Patent No. 6892317 to Sampath et al. and U.S. Pat. No. 6225999 to Jain et al.) have been found to teach the limitations argued by the Applicants. Detailed response is given in sections 6 and 9 as set forth above in this Office Action.

### ***Contact Information***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

XS

December 7, 2006

  
MICHAEL NGHIEM  
PRIMARY EXAMINER